

ABSTRACT

5 A low carbon metal-core weld wires for gas shielded welding operations
having a low carbon steel sheath with a carbon content not more than approximately
0.008 % C. A metal-core composition of the weld wire has little and preferably no
fluxing agents, so that the weld deposit produced thereby has no more than occasional
slag islands formed thereon. The metal-core composition may have carbon added
thereto to improve the mechanical properties of weld deposit produced thereby, and
the metal-core composition is between approximately 16 % and approximately 20 %
10 of a total weight of the metal-core weld wire. The low carbon metal-core weld wire
has a relatively low fume generation rate and produces weld deposits with excellent
mechanical properties.